

LASKARIS et al

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a tension rod inside the conduit of the core, said tension rod having a first end proximate to one side of the coil winding and an opposite end proximate to an opposite side of the coil winding; and

a housing coupling the coil winding to the ends of the tension rod.

### REMARKS

This Amendment After Final should be entered because it amends claim 21 to overcome an objection to its form and amends the independent claims 1, 16 and 21 to clearly distinguish the applied prior art. The independent claims have been amended to make clear that the ends of the tension rod are proximate opposite sides of the coil winding, which is directly contrary to the tension rod that extends perpendicularly through the coil windings in the primary Rios reference.

The telephone interview with the Examiner on March 13, 2002, is appreciated. The substance of the claim amendments presented herein were discussed. No agreement was reached during the interview. However, the Examiner requested that the claim amendments be presented herein be submitted to him in written form for further consideration.

The rejection of claims 1-4, 10, 13-14, 16-18, 20, 21, 23 and 24 as being anticipated by Rios (U.S. Patent No. 4,277,705) is traversed. Claim 1 as amended requires that the tension rod have ends each proximate to an opposite side of the coil. Rios disclose a cross bolt to hold together a stacked rotor coil, where the ends of the bolt are distant from the coils. Further, Rios does not anticipate several of the dependent

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claims for the additional reasons that Rios does not disclose a U-shape channel as recited in dependent claim 2; or the dowel core 10 coupling the tension rod to the housing as recited in claims 5-9, 19, 25 and 26.

Claims 5-9, 11-12, 15, 19 and 25-27 are not obvious over Rios in view of Laskaris (U.S. Patent No. 3,991,333) for substantially the same reasons as stated above. Further, Laskaris '333 does not disclose a tension rod extending between coils such that the ends of the tension rod are proximate to opposite sides of the coil. In Laskaris '333 and Rios, a cross bolt extends perpendicularly through the plane formed by the coil. The cross bolts hold a stacked assembly of rotor plates and coil winding assemblies together. Laskaris '333 and Rios teach away from orienting a tension rod such that its ends are proximate to the sides of the coil to provide coil support.

In addition, the rejection of claim 22 as being obvious over Rios in view of Nottingham (U.S. Patent No. 4,072,873) is traversed for substantially the same reasons as stated above as to why Rios does not anticipate or render obvious any claim. Further, the clamps disclosed in Nottingham do not suggest that the Rios cross bolts be modified to extend between the coils. Accordingly, Rios in combination with Nottingham would not have rendered the subject matter recited in claim 22 to have been obvious.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone applicants' attorney. Prompt reconsideration and allowance of this application is requested.

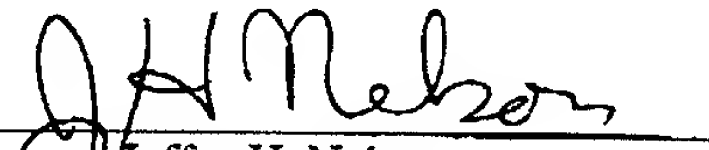
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Attached hereto is a marked-up version of the changes made to the specification and claim(s) by the current amendment. The attached page(s) is captioned "Version With Markings To Show Changes Made."

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS**

1. (Twice Amended) In a synchronous machine, a rotor comprising:
  - a rotor core;
  - a super-conducting coil winding extending around at least a portion of the rotor core, said coil winding having a pair of side sections on opposite sides of said rotor core;
  - at least one tension rod extending between the pair of side sections of the coil winding and through said rotor, wherein [each] a first end of the tension rod is [adjacent one of the] proximate a first side section[s] of the coil winding and a second end of the tension rod is proximate an opposite side section of the coil winding;
  - a coil housing at each of opposite ends of said tension rod, wherein said housing wraps around said coil winding and is attached to said tension rod.
16. (Amended) A method for supporting a super-conducting coil winding on a rotor core of a synchronous machine comprising [the steps of]:
  - d. extending a tension bar through a conduit in said rotor core, such that [the ends] a first end of the tension bar [are each adjacent] is proximate one side of the coil winding and a second end of the tension bar is proximate an opposite side of the coil winding;
  - e. inserting a housing over a portion of the coil;
  - f. attaching an end of the tension bar to the housing.

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21. (Twice Amended) A rotor for a synchronous machine comprising:
- a rotor core having a conduit orthogonal to a longitudinal axis of the rotor;
  - a racetrack super-conducting (SC) coil winding in a planar racetrack shape parallel to the longitudinal axis of the rotor;
  - a tension rod inside the conduit of the core, said tension rod having [ends adjacent to] a first end proximate to one side of the coil winding and an opposite end proximate to an opposite side of the coil winding; and
  - a housing coupling the coil winding to the ends of the tension rod.

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